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(In the Subject of Geography)

Title

"A GEOGRAPHICAL STUDY OF DIFFERENT MODELS IN THE DEVELOPMENT OF URBAN CENTRE: A CASE STUDY OF LATUR CITY"

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Introduction:

The peculiar province of the geographer is to interpret the relation between man and his environment. For a generation there has been debate as to the closeness of this relationship, geographers being divided into two schools on the question. The Possibilist stresses the human aspect of the relation, the Determinist the environmental factor. The present writer belongs to the latter school, and has devoted much research to an evaluation of the relation in regard to the three main types of human agglomeration. These essential types are Race, Nation and City.

The rape of the earth in the name of 'development' in which 80 percent of the world's resources are consumed by 20 percent of its people, will it one day be the cause of our nemesis?

Today the problem of protecting the environment and maintaining the balanced eco-system has become a major task of all developing countries. Conditions infact, are moving from bad to worse and more and more new problems are cropping up everyday and these problems are largely concentrated in and around urban areas.

The concept of development has undergone significant changes resulting in multidimensional environmental problems. Steady degradation of the land, water and forest resources of the country, already affect the survival of several hundred million people across the country and have the potential to affect many in the years to come.

Food, clothing and shelter are the three basic needs of human to survive. All human activities are around to fulfill these basic needs. For shelter, develop the small rural settlement (Basti) and with increasing different activities and population of the Basti; the cities are formed.

Urban geography is a branch of human geography concerned with various aspects of cities. An urban geographer's main role is to emphasize location and space and study the spatial processes that create patterns observed in urban areas. To analyse these phenomena's they study site, evolution and growth and classification of villages, towns and cities as well as their location and importance in relation to different regions and cities is carried out. Economic, political and social aspects within cities are also important in urban geography.

Defining what a city or urban area actually is a difficult task within urban geography, although, urban geographers generally define city as a concentration of people with a similar way of life based on job type, cultural preferences, political views and lifestyle. Specialized land uses, a variety of different institutions and use of resources also help in distinguishing one city from another. In the census of India 2011, the definition of urban area is as follows;

1. All places with a municipality, corporation, cantonment board or notified town area committee, etc.
2. All other places which satisfied the following criteria:
    - A minimum population 5,000;
    - At least 75% of the male main working population engaged in non-agricultural pursuits; and
    - A density of population of at least 400 persons per sq.km.

An urban area is characterized by higher population density and vast human activities in comparison to areas surrounding it. Urban areas may be cities, towns or conurbations. Urban areas are created and further developed by the process of urbanization. Cities are the engines of growth at both regional and national level. To facilitate and sustain this growth, cities have to provide both high quality of life and an efficient infrastructure for economic activities. Cities and towns are emerging as

centers of domestic and international investments where most of the commercial activities take place. The present contribution of cities and towns in country's Gross Domestic Product (GDP) is 63% and it is estimated that cities and towns / urban areas will contribute to about 70% of GDP by 2031 (HPEC report, 2011).

Urban area builds diversified and dynamic economy in the country, its raise productivity, create job and wealth and provide essential services. With this importance of the urban has some issue that really needed to great notice to urban study. Such as absence of information about rapid changing urban areas, absence of spatial database, non-uniformity of database, differences in attribute, interpretation of information. Today our cities are reeling under high pressures of rapid growth and struggling to provide the most basic facilities necessary for urban life. However, awareness regarding city-planning issues has to be improved and this is reflected in the study.

Study regarding the urban development of any region provides the information about the imbalances in the urban issues with their causes. Hence such type of study is helpful in the development planning process of the region.

Choice of the Region and Topic:

For the study of 'A Geographial Study of Different Models in the Development of Urban Centre: A Case Study of Latur City' is selected as a topic of the study region. The city of Latur lies between $18^0 22'$ to $18^0 26'$ north latitudes and $76^0 32'$ to $76^0 37'$ east longitudes. It is surrounded by Barshi road in the west, Nanded road in the east, Ausa road in the south and Renapur road in the north.

The Latur city has an area of 32.55 sq. km. and total population 683626 as per 2011 census. The urban population of the city is distributed among 11 urban sector.

The region under investigation has been influenced by several considerations.

I. Latur city as a district place comprising ten tahsils of Maharashtra state has a significant location on Maharashtra plateau. District as a whole is monotonously under lain by Deccan trap basaltic lava flows. This lava flows on account of weathering and erosion which gives rise to undulating topography. Whole city lies on the Balaghat plateau. The height of the region is ranging from 620 m. to 650 m. form mean sea level. On the basis of topography region is divided in to two basic units i.e. Balaghat Plateau and The North- Eastern Region. As a result of this physical characteristics, make this region distinct physical entity and homogeneous unit for geographical investigation.

II. Climatically entire region falls in the rain shadow area. Climate of the region is generally dry except, during south-west monsoon season. There is a spatial and temporal variation in the distribution of rainfall. Most of the rainfall (84 percent) occurs mainly during the south-west monsoon period.

III. Soils of the region are mainly derived from trap rocks. Basaltic rock structure is the main parent material for the formation of soils. Agriculture is developed in the region of deep and medium black soils, where irrigation facilities are available.

IV. Economy of the region has a agrarian base. Out of the total working population nearly 75.14 percent working population is engaged in secondary and tertiary economic activities.

V. The urban centre act as service centre and play important role in the Socio-economic development of the study region.

VI. The study region has a fairly good system of road and rail network. Transport plays on important role in the economic development of the region and rural-urban interaction.

VII. The physical and socio-economic environment of the region is fairly good for the development of urban centre.

VIII. The researcher who is born and brought up in the study region i.e. Latur is quite aware and well acquainted with geographical environment of the area. So it helps to field work and required data collection for the purpose of study.

IX. The work on the "A Geographical Study of Different Models in the Development of Urban Centre: A Case Study of Latur City" has not been yet attempted by any geographer and such type of work can be useful for urban landuse planning, eradication of urban problems and implementation of developmental schemes. Therefore the researcher has selected this region and topic for the purpose of geographical investigation.

Objectives of the Study :

Following are the main objectives of the present study.

1. To study the Growth of Urban population in the study area i.e. Latur City.
2. To identify and analyse the internal structure of Latur City and its Functional Processess.
3. To analyze the spatial-distribution of urban centre in the study area.
4. To examine the morphological structure and functional characteristics of the urban centre in the region under study.
5. To study the different models in the development of urban centre.

6. To find out the urban problems and to suggest planning strategy of the development of urban centre.

Database and Methodology:

Success of the research work depends upon the methodology adopted for the study. The study will be carried out by using primary as well as secondary sources of data. The some information for this study will be collected through interviews of selected sectors and offices. There will have been various publications and reports on urban sectors in Latur and information will be collected from the following sources:

1. Census of India, Maharashtra, Series-28 Part-XII-B, District Census Handbook, Latur
2. The City Regional Plan Reports
3. Maharasthra Industrial Development Corporation, (MIDC)
4. Latur Municipal Reports.
5. District Statistical Review of Latur district
6. Maharashtra State Gazetteers (Govt. of India) 2011 - Latur District - Gazetteer Department, Government of Maharashtra
7. Ministry of Rural Development, Government of India
8. Socio-Economic Abstract of Latur district.
9. Zilla Parishad and Panchayat Samiti Reports.

These data were supplemented by the official records of the Latur municipality, the Posts and Telegraphs Department, Telephone Exchange, Government Milk Supply Scheme, Forest Department, the Central Railway Office, the Maharashtra State Road Transport Corporation (MSRTC) and the leading banks in the city. The more important categories are i) Commercial Establishments, ii) Milk Collection and Distribution, iii) Money order flows, iv) Bank remittances, v) Telephone Traffic, vi) Co-operative Housing Societies, vii) Social Facilities within

the Latur region, viii) passenger and goods flows and ix) News-paper circulation.

The present work will be based on different theoretical models of urban growth. The present structure and characteristics of a town cannot be comprehended without an understanding of the historical background which led to its origin and subsequent growth. Thus, histogenesis attempts to describe the historical events that lead to town formation and later growth. Developments of roads and streets lead to pattern formation, resulting in the development of various nuclei of human agglomerations. In fact, they constitute the skeletal frame-work of town. Morphogenesis, however, relates to transformation which takes place after pattern formation, i.e. development of roads, streets and paths with lapse of time and multiphased development in various spheres (sing, 1971). In this context, a town is treated as a living organism, because the development of the built-up area along roads, streets and lanes occurs gradually as in any organic form.

The four well-known theoretical models of urban growth, namely, the Concentric Zone Theory of Burgess (1925), the Sector Theory of Hoyt (1939), Multiple Nuclei Theory of Harris and Ullman (1945) and Rostow's Stages of Economic Growth Model (1960) will be applicable in Latur city, which is perfect plan will be development of Latur city.

Concentric Zone Theory:

It is one of the early models of urban form arose from observation that town developed outward from their central area more or less consistently in all directions (Thomas, 1975). Burgess recognized a concentric patterning to the landuse of city in terms of five concentric zones, namely, the central business area, wholesale light manufacturing, low-class residential, medium-class residential and high-class residential.

Thus, landuse tended to sort high-class residential. Thus, landuse tended to sort themselves into reasonably consistent and regular concentric zones. This model, however, provides a successful description of urban growth.

Sector Theory:

It provides that growth takes place along a particular axis of transportation usually consisting of similar types of landuse. The whole town is considered as a circle and the various areas as sectors radiating out from the centre of the town. Similar types of land-use tend to be arranged in sector radiating outward toward the periphery. This theory treats industry more realistically and accommodates the process of residential expansion.

Multiple Nuclei Theory:

This model had a fundamentally cellular structure focused about growth points. The suggest that frequently the landsue pattern of a town is built around several nuclei rather than around a single centre. The number and position of te growth points depended upon the size of the town, the site condition and upon its historical development. Thus, this theory provides an indication of the way in which the urban area develops, of the precise nature of expected developments which might take place in association with existing nuclei.

Rostow's Stages of Economic Growth:

This model is one of the major histrorical models of economic growth. The model postulated that economic growth occurs in five basic stages, of varying length i.e. i) Traditional Society, ii) The Pre-Conditions of Take-off, iii) Take-off, iv) Drive to technological maturity, v) High

Mass Consumption. Rostow argued that economic take-off must initially be led by a few individual economic sectors. Rostow asserts that countries go through each of these stages fairly linearly and set out a number of conditions that were likely to occur in investment, consumption and social trends at each state. Not all of the conditions were certain to occur at each stage, however, and the stages and transition periods may occur at varying lengths from country to country and even from region to region.

These growth models seem to be woven into the fabric of Latur city which explain the development process in the growth of built-up areas.

Review of Literature:

A vast amount of literature on settlement geography, particularly on the towns of the developed countries has grown during the present century but our knowledge of the current processes. Configurations and implications of development of rural settlements and urbanization in the developing countries is still very limited. In our country the credit for introducing this branch of geography goes to E. Ahmad, R.L. Singh, K.N.Singh and M.M. Mukherjee etc.

Ahmad, E. (1948):

The work of Ahmad E. in this particular branch of geography is very important. His Ph.D. Thesis submitted to the University of London is a systematic study of rural and urban settlements of Uttar Pradesh (India). Ahmad and Spate (1950) also studied the growth and function of urban centres of Uttar Pradesh in the article entitled 'Five Cities of the Gangetic Plains', Ahmad (1965) has also analyzed the distribution of rural and urban settlements in Bihar.

Singh, R.L. (1955):

The several works of R.L. Singh on settlement geography have provided guidelines to investigators in this field. His Ph.D. thesis on 'The Human Geography of the Tarai Region' and his other papers provide a detailed analysis of the evolution, growth and distribution of settlements. One of the papers gives clear ideas of meaning, objectives and scope of settlement geography. His paper on 'Evolution of Settlement in the middle Ganga Valley' is significant study of rural settlement (1955). He has also recorded the several advances in the field especially in the study of urban centres and their origin, growth and morphology (1963).

He established the Varanasi school of urban geography. 'Banaras a study in Urban Geography, and 'Bangalore: a urban survey' were very significant contributions of R.L. Singh in the field of urban geography (1957). These research contributions have become the model for study of the towns by young Indian geographers. He published various papers concerning different aspects of urban geography. Such as morphology, function etc.

Datt, A. K. (1960):

In Patna the work of A. K. Datt is notable. A. K. Datt in this Ph.D. thesis provided a significant analysis of the urban landscape of Jamshedpur (1959). He also published papers on Jamshedpur and Howrah and tried to study urban aspects. He has also contributed valuable papers dealing with urban planning, shopping characteristics in subsequent years (1966).

Singh, K. N. (1962):

He has contributed some important papers on settlements geography. His Ph.D. dissertation on the evolution, morphology, functional classification and hierarchy of rural markets and urban centers in eastern U.P. is based on detailed filed study. Further he has published

several papers on various aspects of settlement geography and has given a good review of current literatures. His papers deal with the spatial patterns of central places in the middle Ganga Valley (1966). Territorial basis of medieval towns and villages in eastern U.P. (1968) and functional classification of towns (1959) deserve special mention.

Mukherjee, M. M. (1965):

Functional classification of towns in Bihar is a very significant contribution of Mukherjee. She developed the method to meet the lacuna of the existing methods. Her method tries to ascertain the precise functional specialization of a town. She has given due weightages to each variable which determines the functional indices. It helps intra town comparison and also facilitates easy ascertaining of functional associations (1969).

Bhattacharya, N. D. (1965):

He studied settlements of Murshidabad district of west Bengal. In his Ph.D. thesis he analyzed the evolution. Growth and morphology of settlements are in a systemic way. He explained the impact of physical factors on evolution, growth and morphology of settlements.

Singh, U. (1966):

The study related to urban aspects of Allahabad, is a valuable contribution of Singh which is appreciated as a guideline by many urban geographers (1960). He studied the influence of railways on the development of towns (1960). He also studied evaluation, umland, demographic features, functional zones and changes in built up areas of Kaval towns in U.P. (1962).

Malshe, P. T. (1974):

For the first time Malshe analyzed settlement system of Maharashtra. He studied structure, relationship, elements and functions of settlement systems. He also considered the boundaries of settlement

system. He studied urban aspects of Kolhapur in a systematic way in his Ph.D. thesis entitled 'Kolhapur : A Study in Urban Geography'. He also studied urbanization in Maharashtra. He explained functional classification & religious importance of urban centres.

Mandal, R. B. (1975):

He studied central places of Bihar plain in his article entitled, 'Central place hierarchy in Bihar plain', published in National Geographical Journal of India. He studied distribution and growth of central places. He attempted to study centrality, hierarchy and service areas of central places. He also studied origin, growth, distribution, functional characteristics and morphology of urban centres of North India.

Sinha, V. N. P. (1976):

He studied rural and urban settlement of Chota Nagpur Plateau in his Ph.D. thesis entitled 'Chota Nagpur Plateau : A study in settlement Geography'. In his thesis he presented his work in two sections i.e. (i) Rural settlements and (ii) urban settlements. He studied section of urban study, he analyzed evolution, growth, distribution, functional classification, centrality, hierarchy and morphological characteristics of urban centres of Chota Nagpur Plateau.

Sawant, S. B. (1978):

He made valuable contribution in the field of urban geography. 'Poona: A Study in Urban Geography' is a detailed study of urban attributes which is useful for researcher in urban geography. In his Ph.D. thesis submitted to the University of Poona be included the study of origin, growth, population characteristics, landuse, morphological characteristics of Poona city. He also studied hinterland of Poona and suggested planning scheme for Poona city.

Pathak, A. N. (1983):

In his Ph.D. thesis entitled 'An Analysis of Immediate Umland of Class I cities in Khandesh, Vidarbha and Marathwada' studied the relationship of urban life with surrounding areas. He selected seven class one towns for the demarcation of immediate umland areas. He considered vegetable supply, food-grain supply, newspaper circulation, daily commuting, industrial goods circulation, student's circulation etc. criteria for the demarcation of umland.

Kankure, K. B. (1986):

The study of rural and urban settlements of Marathwada has been attempted by Kankure in his Ph.D. work submitted to University of Poona. His work is based on primary and secondary sources of data. He has given spatio-temporal analysis of growth and distribution of rural and urban settlements. He used mean and standard deviation for functional classification of urban settlements and derived centrality index using number of persons employed in retail trade and derived centrality index using number of persons employed in retail trade and total population.

Mulik, A. D. (1989):

The thesis entitled 'Dynamics of Urbanization: A Geographical Perspective' is significant study of urban aspects of south Maharashtra plateau. He analyzed evolution of urban centres for different periods. His study is based on field work and census data. He has analyzed spatio-temporal patterns of urbanization. He has also studied spatial distribution of urban centres. He classified towns by using Doi's and Nelson's methods. Centrality and hierarchy of urban centers have been derived considering central functions.

Roger Tym & Partners (2005):

South-West Regional Assembly –'Functional Analysis of Settlements', in his final report he analyses the concept of functional

analysis of settlements, settlement growth and planning, future roles and functions of settlements etc.

Jadhav, S. B. (2007):

In his Ph.D. Thesis entitled 'Changing Trends of Urban Settlements in Marathwada after Independence,' included the study of urbanization and urban growth, spatial distribution of urban settlements, occupational structure and functional classification of urban settlements, centrality and hierarchy of urban settlements and morphology of urban settlements.

Moharkar, R. G. (2010):

He studied urban aspects of Solapur in a systematic way in his Ph.D. thesis entitled 'Sholapur: A Study in Urban Geography'. He explained morphology, growth, umland, functional & religious importance of Solapur city.

Dande V. C. (2013):

He studied morphology of urban centres in Latur district in his Ph. D. thesis entitled "Morphological and Functional Analysis of Urban centres in Latur District". He explained morphology, growth, site and situation, functional and religious structure of five urban centres.

Itale D.S. (2015):

He studied the "Morphological and Functional Analysis of Urban centres in Osmanabad District". In his Ph.D. thesis was explained morphological functional analsyis of urban centes in Osmanabad district in detailed.

Tentative Chapter Scheme:

The present study entitled, "A Geographical Study of Different Models in the Development of Urban Centre: A Case Study of Latur City" will be organized into seven chapters.

Chapter – I: Introduction

Chapter – II: Geographical Background of the Study Region

Chapter – III: Growth and Distribution of Population

Chapter –IV: Morphological and Functional Characteristics of Town

Chapter – V: Developmental Models of Urban Centre

Chapter – VI: Problems and Planning

Chapter – VII: Summary and Conclusions

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